WHAT IS CLAIMED IS:

1. An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

external image output device via a network;

characteristic-information storage means for receiving characteristic information of the external image output device from said communication means and storing the characteristic information;

connectivity control means for controlling connectivity of the binary image, which is binarized by the binarization means, based upon the characteristic information stored by said characteristic-information storage means; and

image, the connectivity of which has been controlled by said connectivity control means, to the external image output device via said communication means.

2. The apparatus according to claim 1, wherein said characteristic-information storage means stores correlation between a parameter which decides connectivity of a binary image binarized by said

10 10 7

15

20

25

10

25

binarization means and engine characteristic information representing engine characteristics of the image output device.

3. An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

communication means for communicating with an external image output device via a network;

characteristic-information storage means for storing characteristic information of the external image output device;

connectivity control means for controlling connectivity of the binary image, which is binarized by the binarization means, based upon the characteristic information stored by said characteristic-information storage means; and

transmitting means for transmitting the binary image, the connectivity of which has been controlled by said connectivity control means, to the external image output device via said communication means.

4. The apparatus according to claim 3, wherein said characteristic-information storage means reads and stores characteristic information from a storage medium

10

15

20

which stores characteristics of the external image output device.

- 5. The apparatus according to claim 3, wherein the characteristic information is information indicating the type of engine possessed by the image output device.
- 6. An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

communication means for communicating a parameter with an external image output device via a network, said parameter controlling connectivity of a binary image binarized by the binarization means;

connectivity control means for controlling connectivity of the binary image, which is binarized by the binarization means, based upon a parameter of an output destination obtained by said communication means; and

transmitting means for transmitting the binary image, the connectivity of which has been controlled by said connectivity control means, to the external image output device via said communication means.

25 7. An image processing apparatus having input means for inputting, pixel by pixel, a multilevel image containing

20

25

gray-scale information, and binarization means for binarizing the multilevel image, which has been input by the input means, to a binary image, said apparatus comprising:

5 communication means for communicating with an external image output device via a network;

reading means for reading a test pattern for calculating a connectivity parameter;

parameter calculation means for calculating a parameter, which controls connectivity of the binary image binarized by said binarization means, in conformity with results obtained from said reading means:

connectivity control means for controlling

15 connectivity of a binary image, which is binarized by said binarization means, based upon the parameter calculated by said parameter calculation means; and

transmitting means for transmitting the binary image, the connectivity of which has been controlled by the connectivity control means, to the external image output device via said communication means.

- 8. The apparatus according to claim 7, wherein the test pattern for detecting connectivity is a test pattern that has been output by the external image output device.
- 9. An image processing method for inputting, pixel by

10

pixel, a multilevel image containing gray-scale information, and binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a characteristic-information storage step of receiving characteristic information of the external image output device at said communication step and storing the characteristic information;

a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon the characteristic information stored at said characteristic-information storage step; and

a transmitting step of transmitting the binary

image, the connectivity of which has been controlled at
said connectivity control step, to the external image
output device.

10. An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale

information, and binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a characteristic-information storage step of

25 storing characteristic information of the external image output device;

20

a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon the characteristic information stored at said characteristic-information storage step; and

- a transmitting step of transmitting the binary image, the connectivity of which has been controlled at said connectivity control step, to the external image output device.
- 11. An image processing method for inputting, pixel by 10 pixel, a multilevel image containing gray-scale information, and binarizing the multilevel image to a binary image, comprising:

a communication step of communicating a parameter with an external image output device via a network, said parameter controlling connectivity of the binary image that is binarized;

a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon a parameter of an output destination obtained at said communication step; and

a transmitting step of transmitting the binary image, the connectivity of which has been controlled at said connectivity control step, to the external image output device.

25 12. An image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale

25

information, and binarizing the multilevel image to a binary image, comprising:

a communication step of communicating with an external image output device via a network;

a reading step of reading a test pattern for calculating a connectivity parameter;

a parameter calculation step of calculating a parameter, which controls connectivity of the binary image binarized, in conformity with results obtained at said reading step;

a connectivity control step of controlling connectivity of a binary image, which is binarized, based upon the parameter calculated at said parameter calculation step; and

a transmitting step of transmitting the binary image, the connectivity of which has been controlled at the connectivity control step, to the external image output device.

13. The method according to claim 12, wherein the test 20 pattern for detecting connectivity is a test pattern that has been output by the external image output device.

14. A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarizing the multilevel image to a

15

25

binary image, comprising:

code of a communication step of communicating with an external image output device via a network;

code of a characteristic-information storage step of storing received characteristic information of the external image output device;

code of a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon the characteristic information stored; and

code of a transmitting step of transmitting the binary image, the connectivity of which has been controlled, to the external image output device.

15. A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale

information, and binarizing the multilevel image to a binary image, comprising:

code of a communication step of communicating with an external image output device via a network;

20 code of a characteristic-information storage step of storing characteristic information of the external image output device;

code of a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon the characteristic information stored; and code of a transmitting step of transmitting the

binary image, the connectivity of which has been controlled, to the external image output device.

16. A computer-readable storage medium storing program code of an image processing method for inputting, pixel by pixel, a multilevel image containing gray-scale information, and binarizing the multilevel image to a binary image, comprising:

code of a communication step of communicating a parameter with an external image output device via a network, said parameter controlling connectivity of the binary image that is binarized;

code of a connectivity control step of controlling connectivity of the binary image, which is binarized, based upon an obtained parameter of an output

15 destination; and

code of a transmitting step of transmitting the binary image, the connectivity of which has been controlled, to the external image output device.

17. A computer-readable storage medium storing program
20 code of an image processing method for inputting, pixel
by pixel, a multilevel image containing gray-scale
information, and binarizing the multilevel image to a
binary image, comprising:

code of a communication step of communicating with .

25 an external image output device via a network;

code of a reading step of reading a test pattern

for calculating a connectivity parameter;

code of a parameter calculation step of calculating a parameter, which controls connectivity of the binary image binarized, in conformity with results obtained by reading;

code of a connectivity control step of controlling connectivity of a binary image, which is binarized, based upon the parameter calculated; and

code of a transmitting step of transmitting the

10 binary image, the connectivity of which has been controlled, to the external image output device.

18. The storage medium according to claim 17, wherein the test pattern for detecting connectivity is a test pattern that has been output by the external image output device.